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10/042,632	01/11/2002	Thomas M. Holman		4310

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EXAMINER

SNIDER, THERESA T

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/15/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,632

Applicant(s)

HOLMAN ET AL.

Examiner

Theresa T. Snider

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- ☐ Interview Summary (PTO-413) Paper No(s). ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:
reference character "20" has been used to designate a 'freely rotating cup'(page 5, line 4),
'freely turning receiving cup'(page 5) and 'freely turning cup'(page 5);
reference character "25" has been used to designate a 'sleeve'(page 5), 'cone-shaped
element'(page 6) and 'rough length adjustment'(page 8). A proposed drawing correction or
corrected drawings are required in reply to the Office action to avoid abandonment of the
application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because
reference characters "32a"(page 6) and "32"(page 6) have both been used to designate ring gear.
A proposed drawing correction or corrected drawings are required in reply to the Office action to
avoid abandonment of the application. The objection to the drawings will not be held in
abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they
include the following reference sign(s) not mentioned in the description: 41b(figure 1). A
proposed drawing correction, corrected drawings, or amendment to the specification to add the
reference sign(s) in the description, are required in reply to the Office action to avoid
abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to because 35 in figure 3 does not appear to be directed to the
same structure as 35 in figure 1. A proposed drawing correction or corrected drawings are

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required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 25b(page 8). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

Exemplary of such:

Page 1, '5,143.529' should be replaced with '5,143,529'.

Page 3, it is unclear as to what is meant by 'it may into'; it appears to be missing a word.

Page 5, line 3, 'ends. one' should be replaced with 'ends. One'.

Page 6, line 2, 'close' should be replaced with 'closed'.

Page 13, line 4, 'chambers. air' should be replaced with 'chambers. Air'.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 1, line 2, it is unclear as to whether 'said filter having an open end and a closed end' is intending for the 'filter' to be a positively recited element of the invention;

Line 6, the use of 'lateral moving' and 'along the length of said filter' is confusing; is one moving along the length of the filter in a direction lateral to the longitudinal axis OR is one simply moving along the length of the filter? If it's latter, one may delete 'lateral' from all occurrences.

Claim 2, line 1, 'said jetting means' should be replaced with 'means for jetting';

Line 2, it is unclear as to how the nozzle can be 'downwardly and forwardly' of the length of the filter if it travels along it.

Claim 3, line 1, 'said means for adjustably supporting said jetting means' lacks proper antecedent basis;

Line 2, 'said jetting means' should be replaced with 'means for jetting';

Line 2, it is unclear as to what constitutes a 'parallelogram type element'.

Claim 4, line 1, 'said jetting means' should be replaced with 'means for jetting';

Line 2, it is unclear as to whether 'an outer circumferential surface' is in addition to the 'outer circumference' of claim 1, line 3 or one in the same.

Claim 6, line 1, 'said means for adjustably supporting said jetting means' lacks proper antecedent basis;

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Line 2, 'air' should be inserted after 'jetting';

Line 5, it is unclear as to whether the 'a circumference' is in addition to that of claim 1, line 6 or one in the same.

Claim 7, line 1, 'air' should be inserted after 'jetting';

Line 5, 'laterally' should be replaced with 'lateral';

Line 5, 'the' should be deleted.

Claim 9, line 2, it is unclear as to what constitutes 'roughly adjusting'.

Claim 10, line 1, it is unclear as to what constitutes 'finely adjusting'.

Claim 11, line 3, it is unclear as to whether 'said filter having an open end and a closed end' is intending for the 'filter' to be a positively recited element of the invention;

Lines 6 and 9, 'rotating' should be deleted.

Line 9, 'said compressed' should be replaced with 'said';

Line 9, the use of 'reciprocating laterally along the length of said filter' is confusing; is one moving along the length of the filter in a direction lateral to the longitudinal axis OR is one simply moving along the length of the filter? If it's latter, one may delete 'laterally' from all occurrences.

Claim 12, line 2, 'said hermetically sealing' lacks proper antecedent basis.

Claim 13, line 1, 'said' should be deleted;

Line 2, 'said means for reciprocating laterally' lacks proper antecedent basis.

Claim 14, line 3, 'hermetically sealed' should be replaced with 'inner'.

Claim 15, line 2, 'compressed' should be inserted after 'supplying';

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Line 3, it is unclear as to whether 'an outer circumference' is in addition to that of claim 11, line 8 or one in the same.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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12. Claims 1-2, 5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Means, Jr. in view of Grotto.

Means, Jr. discloses a similar filter cleaning apparatus however fails to disclose a rotating cup for supporting a filter.

Means, Jr. discloses an enclosed cleaning chamber (fig. 1, upper 'box').

Means, Jr. discloses means within the chamber for rotatably supporting a filter (fig. 1, #50,46). Grotto discloses a filter cleaning apparatus having a freely rotating cup and cone-shaped element for rotatably supporting a filter within a cleaning chamber (fig. 2, #53,33). It would have been obvious to one of ordinary skill in the art to provide the support means of Grotto in Means, Jr. to allow for the most secure engagement of a filter that has an open top.

Means, Jr. discloses a means for driving the supporting elements (fig. 1, #70).

Means, Jr. discloses means for movably jetting air onto the outer circumference of a filter (col. 3, lines 44-47 and col. 4, lines 1-4).

Means, Jr. discloses the moving means being located outside of the cleaning chamber (fig. 1, lower 'box').

With respect to claim 2, Means, Jr. discloses the means for jetting air being two jets that are slanted downwardly and forwardly of the filter (fig. 9, #105,104).

With respect to claim 5, it would have been obvious to one of ordinary skill in the art to determine the most appropriate, known mechanical system in Means, Jr. to move the means for jetting to allow for the most effective traveling of the means along the filter.

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13. Claims 1-2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKay et al. in view of Grotto.

McKay et al. discloses a similar filter cleaning apparatus however fails to disclose a rotating cup for supporting a filter.

McKay et al. discloses an enclosed cleaning chamber (fig. 2, #5).

McKay et al. discloses means within the chamber for rotatably supporting a filter (fig. 2, #9). Grotto discloses a filter cleaning apparatus having a freely rotating cup and cone shaped element for rotatably supporting a filter within a cleaning chamber (fig. 2, #53,33). It would have been obvious to one of ordinary skill in the art to provide the support means of Grotto in McKay et al. to allow for the most secure engagement of a filter that has an open top.

McKay et al. discloses a means for driving the supporting elements (fig. 2, #13).

McKay et al. discloses means for movably jetting air onto the outer circumference of a filter (col. 5, lines 37-39 and lines 64-66).

McKay et al. discloses the moving means being located outside of the cleaning chamber (fig. 1, #13,34).

With respect to claim 2, McKay et al. discloses the means for jetting including two air jets that are slanted downwardly and forwardly of the length of the filter (fig. 2, #37,38).

With respect to claim 5, it would have been obvious to one of ordinary skill in the art to determine the most appropriate, known mechanical system in McKay et al. to move the means for jetting to allow for the most effective traveling of the means along the filter.

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14. Claims 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grotto in view of McKay et al..

Grotto discloses a similar filter cleaning apparatus however fails to disclose means for supplying compressed air onto an outside of a filter.

Grotto discloses an inner cleaning chamber (fig. 2, #10).

Grotto discloses a means for rotating a filter within the chamber (col. 3, lines 37-38).

Grotto discloses means for inducing a negative pressure within the chamber (col. 3, lines 45-47).

Grotto discloses means for inducing a positive pressure within the filter (col. 3, lines 47-51).

McKay et al. discloses a filter cleaning apparatus having means for supplying compressed air onto an outside of a filter (fig. 2, #37,38). It would have been obvious to one of ordinary skill in the art to provide the means for supplying air of McKay et al. in Grotto to ensure for the most effective removal of dirt from the surface of the filter.

With respect to claim 13, McKay et al. discloses means for moving the means for supplying air along the length of the filter (fig. 2, #34).

With respect to claim 14, McKay et al. discloses a means for rotating filter and the means for driving the means for supplying air being located outside of the cleaning chamber (fig. 2, #34,15). It would have been obvious to one of ordinary skill in the art to provide the means for rotating of Grotto on the outside of the chamber, as disclosed in McKay et al. to allow for ease in access by an operator without disassembling the apparatus.

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With respect to claim 15, McKay et al. discloses means for adjusting the means for supplying air (col. 5, lines 64-66).

Allowable Subject Matter

15. Claims 3-4, 6-10 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter:

The prior art discloses a filter cleaning apparatus having a cone-shaped element and rotating cup for supporting a filter, a means for jetting air onto the outer circumference of the filter and means for moving the jetting means along the length of the filter HOWEVER fails to disclose or fairly suggest the means for adjusting the jetting means including a parallelogram shaped element to keep the jetting means at a top dead center of the filter regardless of the diameter of the filter OR the means for moving the means for jetting air including two plates which are movable relative to each other and carry the means for jetting at a downward end, the plates have means for arresting the plates relative to each other and relative to the outer circumference of the filter OR the means for jetting air having an upper support plate at an upper end thereof, the plate extending through a means for the interior of the cleaning chamber from the outside, the upper plate being mounted on a slidable carriage constituting the means for moving the means for jetting air OR the rotating cup being supported on a backup plate that has means for roughly adjusting the plate to any given filter length.

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Conclusion

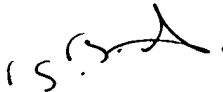
17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Simms et al. discloses an apparatus for cleaning filters that has means for jetting air onto an outer surface of a filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (703) 305-0554.

The examiner can normally be reached on Monday-Wednesday-Friday (6:30AM-3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (703) 308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Theresa T. Snider
Primary Examiner
Art Unit 1744

TTS